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Caitlin Koch

Georgia Southern University, sk01432@georgiasouthern.edu

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The Impact of a Nutrition Education Intervention on Self-Reported Feelings of Food Insecurity

Caitlin Kitchen Koch, MPH(c), Dr. Andrew Hansen, DrPH, Rebecca Larson, RD, LD
Community Health Behavior and Education

INTRODUCTION

- Food insecurity is prevalent in the United States and affects approximately 14.6% of households (ADA, 2010).
- “A large body of epidemiologic data show that diet quality follows a socioeconomic gradient,” (Darmon & Drewnowski, 2008).
- Food insecurity is a vicious cycle that increases the continuance of poor dietary behaviors such as low fruit and vegetable intake, inadequate nutrient intake, overweight and obesity, eating whatever is cheapest, and forgoing meals in order to feed other family members (Darmon & Drewnowski, 2008).
- Data has shown that people who have a lower socioeconomic status are more likely to eat refined grains, fewer and lesser variety of fruits and vegetables, consume more added fats and sugars, have lower concentrations of vitamins C, B12, riboflavin, and carotenoids, and have an imbalance in the ratio of sodium to potassium in their bodies (Darmon & Drewnowski, 2008).
- A previous study looked at the idea of using nutrition education to combat food insecurity. Their study consisted of 219 females who were 18 years or older, eligible to receive food stamps, and responsible for money making decisions in their households who were split in to two groups, a control group and an experimental group. The experimental group received five Food Stamp Nutrition Education Lessons over the course of five weeks, whereas the control group did not receive the lessons. The researchers found that the experimental group had vast improvements in their self-reported levels of food insecurity after receiving better education about the nutrition behind their food choices (Eicher-Miller, Mason, Abbott, McCabe, & Boushey, 2009).

PURPOSE

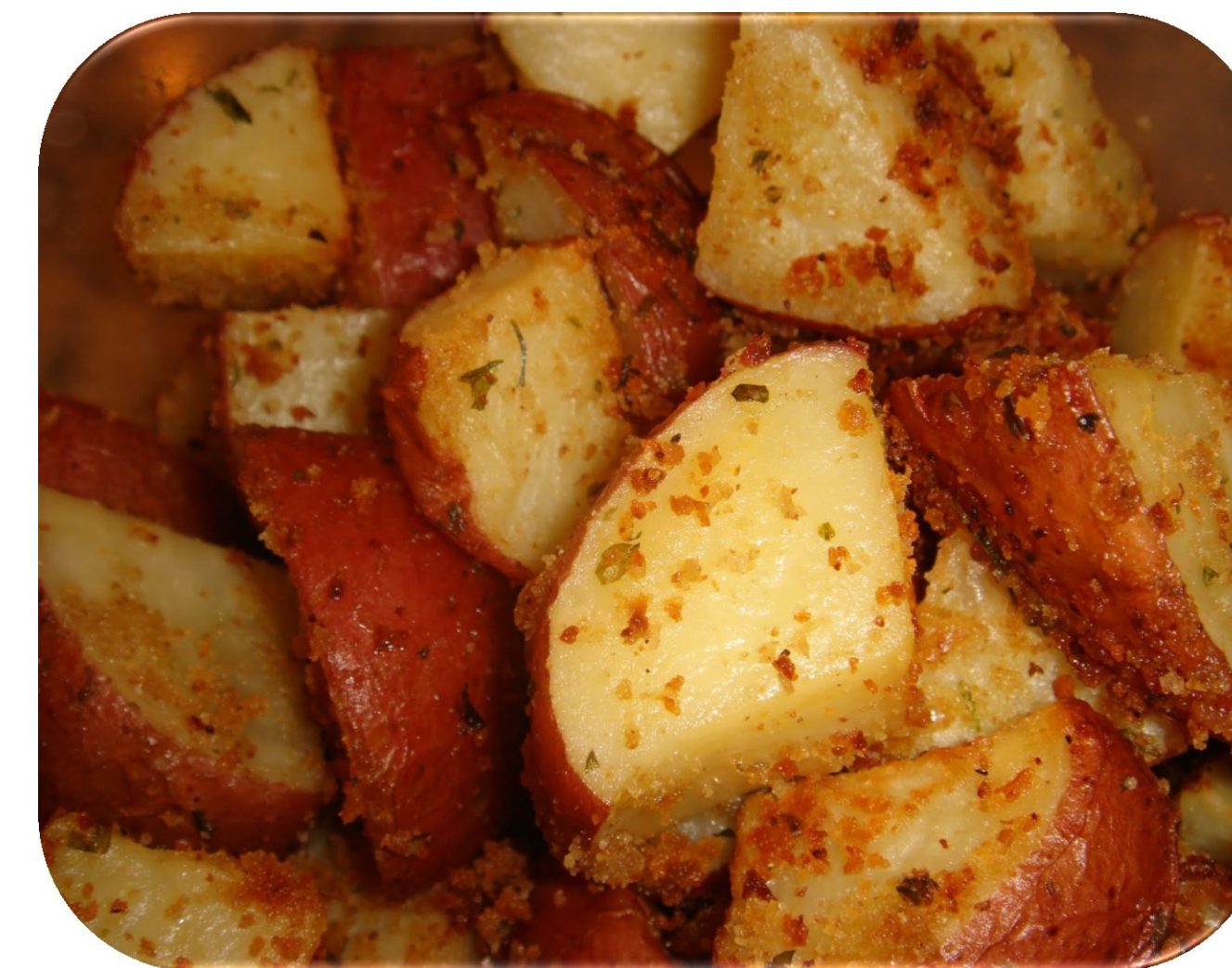
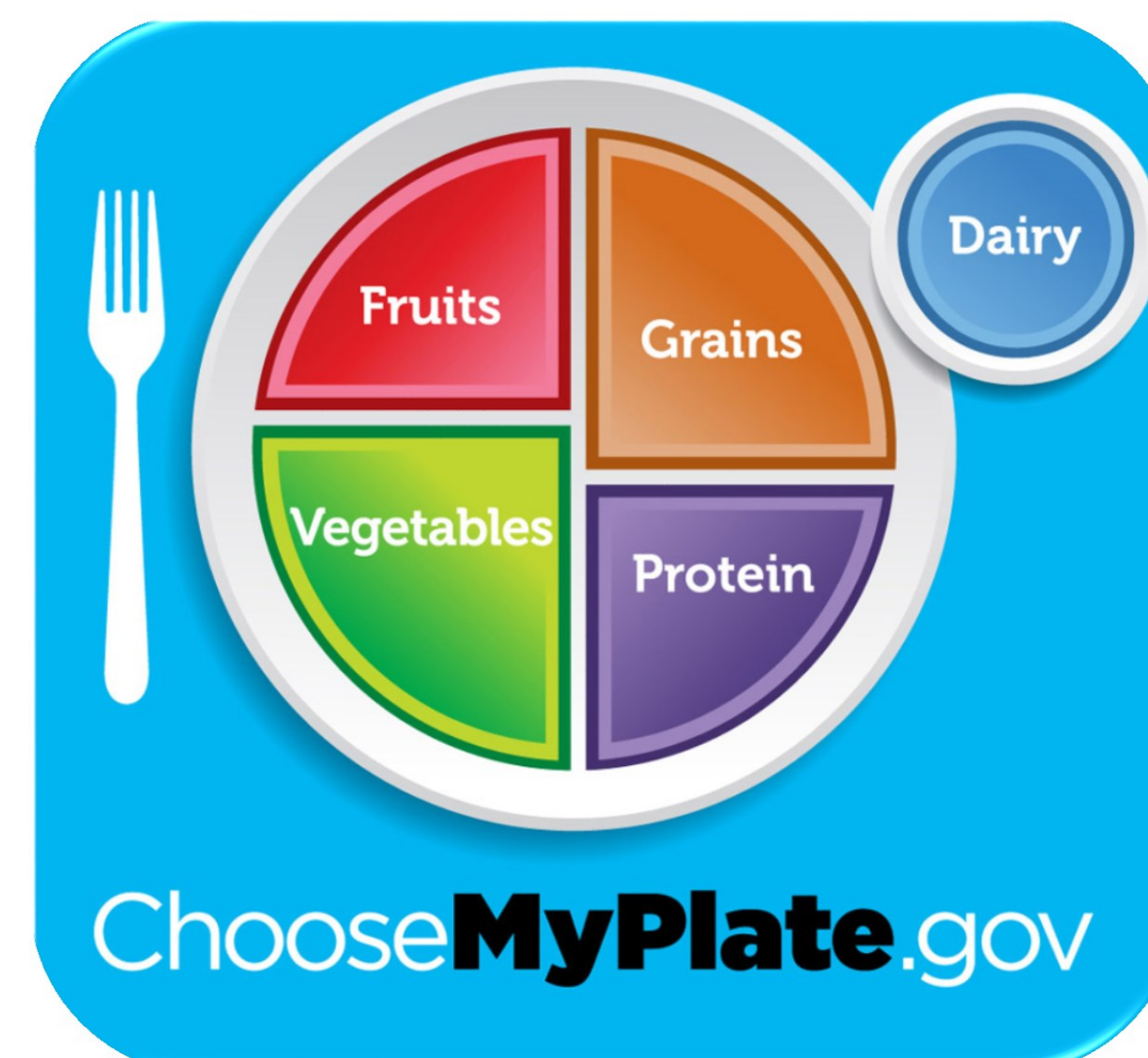
- To investigate the impact of a Nutrition Education Intervention Lesson on participant’s self-reported feelings of food insecurity, self-efficacy regarding nutrition, and nutritional knowledge.

METHODS

- Thirty-one participants were recruited for this study.
- Participants were 18 years of age or older and were the person in the household responsible for food purchasing decisions.
- Participants were recruited at the Bulloch County Food Bank.
- Participation was voluntary, and all participants received free educational materials that coincided with the lesson as well as samples of healthy, home-cooked meals. A quasi-experimental study using a one day nutrition intervention lesson with pre-post assessment.
- Constructs of the Social Cognitive Theory and the Health Belief Model were the theoretical frameworks used to develop pre and post-tests.
- The main outcome measures used included: self-reported feelings of food insecurity, levels of self-efficacy regarding nutrition, and nutritional knowledge.
- A paired sample T-test was used to determine the mean differences from pre to post intervention.

RESULTS

- There was a statistically significant difference in the participants’ level of self-efficacy before the intervention (M=245.33, SD=46.811) and after the intervention (M=281.33, SD=24.457) conditions, $t(29) = -5.634$, $p < 0.001$.
- There was also a significant difference in the participants’ level of knowledge before the intervention (M=50.97, SD=15.568) and after the intervention (M=74.52, SD=18.590) conditions, $t(30) = -6.225$, $p < 0.001$.



PUBLIC HEALTH SIGNIFICANCE

- If future longitudinal studies confirm what has been discovered through our research, educating food insecure families may prove to be a sustainable combatant to food insecurity.
- Community Health Education: Applied SCT and HBM constructs to understand the impact of a multi-faceted nutrition education intervention lesson on food insecure people’s knowledge and self-efficacy regarding nutrition.
- Biostatistics: In the future, biostatistics would be used to obtain a more representative sample.
- Health Policy: The results of this study may assist in informing policy makers on intervention strategies that best combat food insecurity as well as demonstrate that education can be a supplement to food related assistance programs.
- Epidemiology: Identified individuals who battle food insecurity as well as their perceptions of food insecurity. In the future, further identification of the prevalence of food insecurity would be helpful to assess the scope of needed interventions.
- Environmental Health: Assess participants’ access to and the availability of affordable, nutritious food options within the community.

STRENGTHS & LIMITATIONS

- Validated surveys
- Reputable sources used for the educational content
- Multi – faceted approach used
- Small sample size
- Only a 1 day intervention

CONCLUSIONS

- The nutrition education intervention lesson had a positive impact on participants’ levels of self-efficacy and nutritional knowledge.
- The nutrition education lesson offered in this study emphasized the importance of nutritional knowledge, knowing how to purchase healthy food options on a budget, and understanding that preparing healthy meals at home does not have to be an overwhelming process.
- By combining these three areas there was a significant increase in participants’ levels of knowledge and self-efficacy.
- Simple nutrition education intervention lessons that include nutritional knowledge, budgeting ideas, and taste tests can be an effective means for combatting food insecurity.
- Knowledge and self-efficacy together are the key to creating a sustainable environment for healthier behaviors.
- By focusing on empowering participants, this intervention model equips people with the tools to put their new knowledge into action.
- A longitudinal experimental design is recommended to determine if this could be a sustainable and cost-effective way of addressing food insecurity.

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